

Cover Page for Module (Standards for Mathematical Practice)

Standards for Mathematical Practice

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| Module One: | Standards for Mathematical Practice |
| Approximate Time: | 6 hours |
| Purpose: | To familiarize teachers with the Standards for Mathematical Practice. To build a sense of community among institute participants. |
| CCSSM Content | Modeling with Mathematics |
| Connections to other modules | |
| Big Ideas of Module | Team Building, Understanding the Standards for Mathematical Practice |
| Materials for Module | Instructions for Name Tag Glyph, Copies of Maps Activity, Name tents, markers, Index cards, Pens, Pencils, Chart paper, Post it notes. |
| Activities and time: | Problem of the day, 1 st day Name Tag Glyph, 2 Truths and a Lie, Standards for Mathematical Practice Poster Creation and Gallery Walk, Modeling Activity: Maps, Myths, and Misrepresentations |
| Problem of the Day | Make and use a drawing or model: A cricket and a flea decided to hop up a set of stairs. The flea takes 2 steps in one hop. The cricket takes 3 steps in one hop. The set of stairs has 12 steps. Which steps will both the cricket and the flea land on? Which steps do neither of them land on? |

Activity One: 1st Day Name Tag Glyph (30 minutes)

| Instructor Talking Points | Participants | Materials |
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| Instructor provides copies of instructions for Name Tag Glyph to participants. | Read and follow directions to complete a name tent. Meet another participant and introduce them to the group. | Name tents, markers, directions |

Activity Two: Two Truths and a Lie (20 minutes)

| Instructor Talking Points | Participants | Materials |
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| Instructor explains the instructions for the 2 truths and a lie activity | Each person fills out an index card with three statements about themselves, one of | Index cards, Pens, Pencils |

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| | <p>which will be false. Participants share their cards with everyone else in the class. Other participants try to identify the statement that is a lie. Participants share with the class which of their statements is a lie.</p> | |
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Activity Three: Standards for Mathematical Practice (105 minutes)

| Instructor Talking Points | Participants | Materials |
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| <p>Instructor passes out copies of the CaCCSS Standards for Mathematical Practice.</p> <p>Instructor organizes participants into 8 groups.</p> <p>Instructor assigns 1 Standard for Mathematical Practice to each group.</p> <p>Instructor has each group create a poster paraphrasing the standard and providing an example.</p> | <p>Create posters about one of the 8 Standards for Mathematical Practice.</p> <p>Do a gallery walk and provide feedback on each of the posters.</p> <p>Share their thoughts about the Standards.</p> | <p>Chart paper</p> <p>Markers</p> <p>Post it notes.</p> |

Activity Four: Maps, Myths, and Misrepresentations (120 minutes)

| Instructor Talking Points | Participants | Materials |
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| <p>The instructor passes out copies of the Mercator Map and the Map Activity handout.</p> <p>The instructor informs the group of the area in square miles of Mexico and asks the participants to use that information, the map, and other materials available to calculate the area of other countries and continents.</p> <p>The instructor asks groups to report out their results from the calculation of areas.</p> <p>The instructor reveals the actual areas of the countries and continents.</p> <p>The instructor leads a discussion about participant reaction to maps activity.</p> | <p>Participants determine the areas of several countries and continents using the Mercator map.</p> <p>Participants share their results and calculation strategies with the rest of the class.</p> <p>Participants discuss the reasons and consequences of map distortions.</p> | <p>Mercator Maps</p> <p>Centimeter cubes</p> <p>Centimeter Graph Paper</p> <p>Rulers</p> <p>Activity Worksheets</p> |

Activity Five: Journal Write (15 minutes)

| Instructor Talking Points | Participants | Materials |
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| <ul style="list-style-type: none"> Instructor provides a journal prompt about | Participants respond to a journal | Journals |

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| implementation of the Common Core Standards | prompt about implementation of the Common Core Standards | |
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